

This is an INVESTMENT into the most basic MOBILE/PACKABLE Short Wave Radio Equipment, for Sustained Long Distance Emergency Communications. For a GRID DOWN scenario, which is a question of "WHEN", not "IF".

Short Wave radio is capable of reliable long distance Communications, which could be essential in the event of a Grid Down emergency. 4,000 miles+ with the equipment listed below. If Chinese Troops are getting ready to move into your area, you may want to know about it before your organs get harvested.

Add up your total yearly costs for phones. If the Grid goes down, the cell phones go down. If War comes, your phone goes. You will have no way to know what is happening and be completely in the dark, unless you are able to monitor Short Wave radio. AM Radio is long distance and FM Radio is local, but if the Grid is down, they will not be in Operation. Most do not have backup generators and if they do, this will be short term until they run out of fuel, which will not be replaced any time soon, if ever.

The List below includes everything that is needed for a Grid Down sustained Communications capability. This includes a lightweight highly reliable Lithium Battery and lightweight Solar Panels to charge it, which can be folded up into a small packable package. Everything works together and sized for compatibility. Whatever you may find to replace these items is up to you. You may find that something else will work better for your needs.

It may be very beneficial to study to get your HAM license and practice using the Radio, so you become knowledgeable with all involved.

It may be also be prudent for you to learn basic cypher/code theory, to communicate in any future adverse situation. These are just the basics:

****Basics of Cryptography: Caesar Cipher** <https://www.instructables.com/Basics-of-Cryptography-Caesar-Cipher/>

****How to Make a Code Wheel** <https://www.wikihow.com/Make-a-Code-Wheel>

1) YAESU FT-891 HF + 50 MHz All Mode Mobile Transceiver With MH-31A8J Mic

100 watt - adjustable output

HRO Discount Price: \$639.95

*Highly reliable and enough power to reach 4,000+ miles. Can be adjusted from 5 through 100 watts

Backpack PORTABLE

*Videos - <https://www.youtube.com/watch?v=U1bqp3C3s9Q> and

<https://www.youtube.com/watch?v=yPMSgurd4Uo> and
<https://www.youtube.com/watch?v=U1L-5wl5rpQ>

2) MFJ MFJ-945E 1.8 - 60 MHz Mobile Cross Needle "Antenna Tuner" - HF + 6M
300 Watts - with Bypass Switch - SO-239
HRO Discount Price: \$139.95

3) Chameleon Antenna - CHA EMCOMM III Portable Antenna
HRO Discount Price: \$138.95
*Lightweight Wire antenna - can be set up in 15 minutes - using trees for suspension
*Videos - <https://www.youtube.com/watch?v=toHaViMAAow> and
https://www.youtube.com/watch?v=6eNZHDa_7Pg
and <https://www.youtube.com/watch?v=v9MpFiuGqNY>

EBAY.com

4) Coax Cables 50 Ohm - 1 ea. 30 foot and 1ea. 10 foot
A) RG58 Silver PL259 UHF Male to PL259 UHF Male Coax RF Cable - 30 foot \$24.50
ebay# 372538263941

*Use to connect Antenna to Lightning Surge Arrestor, if leaving Antenna in place
other than temporary portable setup,

or storm conditions

B) RG58 Silver PL259 UHF Male to PL259 UHF Male Coax RF Cable - 10 foot \$14.50
ebay# 372538263941

*Use to
connect from Lightning Surge Arrestor to Transceiver

C) For long term setup - You will need about 5 feet of 10 gage wire to use for Surge
Arrestor Ground,

with Connectors to connect to Surge Arrestor and to a small Ground Rod

5) Bioenno Power BLF-1215AS 12V 15Ah LFP LiFePO4 Battery - 30A Max Discharge
- 4.3 lbs.

\$167.49 ebay# 113164537594

*Don't mess around with cheap batteries - Get this specific battery (Or smaller

lighter weight)

- *Proven track record and capacity for this application

- *Be certain to learn and follow ALL procedures for Charge and Discharge of any Battery.

- *Battery life can be seriously affected, as well as your wallet

- *Get proper Battery Connectors or Plugs to connect the Battery to the Transceiver and the Solar Panels through the 10 Amp Solar Charge Controller

- *Need 12 gage wire and Ring Terminal Connectors to connect to the battery, will be for proper Amps/Current flow to the Transceiver

- *Transceiver draws 23 Amps while transmitting at 100 watts, which is slightly above 12 gage wire rating.

- *Use 90 Watts under normal Operation, for 12 gage wire. 100 Watts can be used with 12 gage wire, but will get a little warm.

6) Bioenno Power BPC-1504CLIP 14.6V 4A AC to DC Charger with Alligator Clips

\$33.74 ebay# 113164537534

- *Specific Charger to charge the Bioenno Battery from 120VAC house power

7) Outdoor 25W 12V Solar Panel Semi Flexible US \$27.00/ea x 4ea.

\$135.00 approx. ebay# 174522787425

- *Connect "Parallel" for more current - All Positives connected together/All Negatives connected together - For 12V Battery Charging

- *Connect paracord to corners to attach panels together, and for tie off at angle, to face sun)

- *Two hiking staffs/poles or lightweight poles/sticks cut from branches can be used to create suspension, using several feet of paracord and tent stakes)

8) Renogy Wanderer Common Negative 10 Amp Solar Charge Controller Battery Regulator \$17.00 x 2ea.

\$34.00 ebay# 283908862114

*Have extra for a back-up

9) FORESTRY ARBORIST PROFESSIONAL THROWLINE KIT WITH BAG 15OZ THROW BAG AND LINE

\$32.00 ebay# 224207767853

*Use this to get Camo Paracord into tree, to suspend Wire Antenna

*Some use a portable fold out box for easier operation

*Videos - <https://www.youtube.com/watch?v=0vluXcjlufU> and <https://www.youtube.com/watch?v=Rp0Y5kGKOSA>

10) Powerwerx Watt Meter, DC Inline Power Analyzer, 45A Continuous, 12 Gauge, Powerpole Ends

\$60.00 ebay# 352046990951

*Needed to monitor Battery Charge and Power usage. This is high quality

11) Sermos Connectors - Anderson Powerpole - 30 Amp Power Pole - 15 Pairs

\$22.00 ebay# 193607277888

*Needed to connect Power Supply wires from Solar Charge Controller to Battery to Power Meter to Transceiver

12) Ratchet Crimping Tool (Crimper) for Anderson Powerpole Connectors 15, 30, 45AMP

\$40.00 ebay# 352870743010

*Needed to connect Power Supply wires from Solar Charge Controller to Battery to Power Meter to Transceiver

AMAZON.COM

10) UHF Coaxial Lightning Arrestor PL-259 Lightning Surge Protector

PL259 Socket (UHF Female) to SO239 Socket (UHF Female)

\$16.35 Brand: RIOTAXY

1) 3V Gear Paratus 3-Day Operator's Tactical Backpack \$75.00

Shipping is included with all - Approximately \$1,700.00 total with tax

*List complete except for paracord

***Portable Ham Radio Gear. What do you need? https://www.youtube.com/watch?v=y_7UVJoAlvI

***Portable Ham Radio Off Grid <https://www.youtube.com/watch?v=OPEkUHAMY5Y>